AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (currently amended) A gas sensor having a length with a first and a second end opposed to each other comprising:

a hollow cylindrical housing having a first end and a second end ~~opposed to~~ respectively adjacent the first and second ends of the gas sensor~~, respectively~~;

a sensing element retained within said housing which has a length extending in a longitudinal direction of the gas sensor, including a sensing portion working to measure a concentration of a specified gas; and

a cover assembly installed on the second end of said housing to define a gas chamber in which the sensing portion of said sensing element is disposed and into which the specified gas is admitted, said cover assembly having a length extending in the longitudinal direction of the gas sensor, including an outer and an inner cover, the outer cover having a first gas inlet hole formed in a side wall thereof, the inner cover having formed in a side wall thereof a second gas inlet hole which is located closer to the first end of the gas sensor than the first gas inlet hole of the outer cover, the inner cover being disposed within the outer cover with a given clearance between the outer and inner covers, ~~at least one of the outer and inner covers being geometrically designed to define a gas path within the clearance which establishes a flow of the specified gas from the first gas inlet hole to the gas chamber through the second gas inlet hole for minimizing interference of a return gas flow produced within the clearance, oriented toward the first gas inlet hole with the flow of the specified gas into the gas chamber along the gas path~~ wherein one of the outer and inner covers of said assembly has formed on the side wall thereof a shoulder which separates the clearance between the outer and inner covers into a wider and a narrower portion, and wherein

the wider portion is located nearer the second gas inlet hole of the inner cover than the narrow portion.

Claim 2. (canceled).

3. (currently amended) A gas sensor as set forth in claim 1, wherein the ~~clearance formed between the outer and inner covers is made up of a narrower portion and a~~ wider portion is 1.1 times wider than the narrower portion.

Claim 4. (canceled).

5. (currently amended) A gas sensor as set forth in claim 1, wherein the inner cover has a gas-~~flow-opposed~~ flow-intercepting wall ~~oriented upstream of the gas path~~ that is disposed at an angle to a gas flow direction from said first gas inlet hole to said second gas inlet hole, the second gas inlet hole being formed in the gas-~~flow-opposed~~ flow-intercepting wall.

6. (currently amended) A gas sensor as set forth in claim 5, wherein the gas ~~flow-opposed~~ flow-intercepting wall is defined by a shoulder which is formed on the side wall of the inner cover and-~~extends~~ flares outward-~~to~~ and toward the first end of the gas sensor.

7. (currently amended) A gas sensor as set forth in claim 1, further comprising a groove formed in the side wall of the outer cover serving to direct the flow of the specified gas-~~to~~ toward the second gas inlet hole of the inner cover.

8. (currently amended) A gas sensor as set forth in claim 1, wherein ~~having a length with a first and a second end opposed to each other comprising:~~

~~a hollow cylindrical housing having a first end and a second end opposed to the first and second ends of the gas sensor, respectively;~~

~~a sensing element retained within said housing which has a length extending in a longitudinal direction of the gas sensor, including a sensing portion working to measure a concentration of a specified gas; and~~

~~a cover assembly installed on the second end of said housing to define a gas chamber in which the sensing portion of said sensing element is disposed and into which the specified gas is admitted, said cover assembly having a length extending in the longitudinal direction of the gas sensor, including an outer and an inner cover, the outer cover having a first gas inlet hole formed in a side wall thereof,~~ the inner cover ~~having~~ has a tapered surface formed on a side wall thereof ~~which tapers off to a side of the second end of the gas sensor, the inner cover having formed in the tapered surface thereof a second gas inlet hole which is located closer to the first end of the gas sensor than the first gas inlet hole of the outer cover, the inner cover being disposed within the outer cover with a given clearance between the outer and inner covers which defines a gas path establishing a flow of the specified gas from the first gas inlet hole to the gas chamber through the second gas inlet hole~~.

9. (canceled).

10. (original) A gas sensor as set forth in claim 8, wherein the inner cover has a straight surface continuing from the tapered surface, extending straight in the longitudinal direction of the gas sensor.

11. (currently amended) A gas sensor as set forth in claim 8, further comprising a groove formed in the side wall of the outer cover serving to direct the flow of the specified gas ~~to~~ toward the second gas inlet hole of the inner cover.

12. (currently amended) A gas sensor as set forth in claim 8, wherein the outer cover has ~~a~~ said shoulder formed closer to an upstream side of the flow of the specified gas than the tapered surface of the inner cover to define an upstream portion of the gas path closer to the first gas inlet hole of the outer cover and a downstream portion of the gas path closer to the second gas inlet hole of the inner cover, the downstream portion being greater in area than the upstream portion in a direction traversing the longitudinal direction of the gas sensor.

13. (currently amended) A gas sensor as set forth in claim 8, wherein the outer cover has formed on the side wall thereof ~~a~~ said shoulder, said shoulder being tapered ~~which tapers off to a side of the first end of the gas sensor~~ to define ~~a~~ the wider portion of the ~~gas path~~ clearance between the tapered surface of the inner cover and the shoulder of the outer cover, and further comprising a groove formed in a portion of the side wall of the outer cover closer to the first gas inlet hole than the shoulder of the outer cover, the groove serving to direct the flow of the specified gas ~~to~~ toward the second gas inlet hole of the inner cover.

14. (original) A gas sensor as set forth in claim 13, wherein the groove has a length extending in alignment with the second gas inlet hole of the inner cover in the longitudinal direction of the gas sensor.

15. (new) A gas sensor as set forth in claim 8, wherein the inner cover has formed in the tapered surface thereof said second gas inlet hole.